


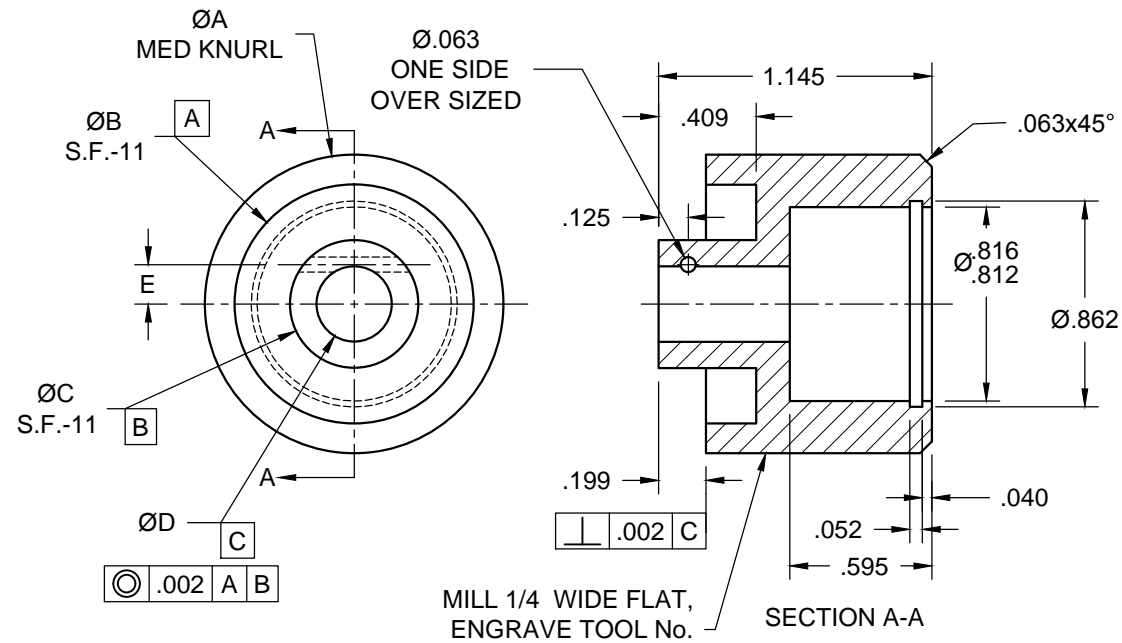
UNDER REVIEW

URF 19-1111 19.10.30 (VM)

BEARING # BACB10	TOOL #	A	MATERIAL
GBO4G	KSTGB04P	#10-24 UNC	4140 Q&T RND. BAR Ø7/8 x 7/8

 RED BARN MACHINE	
TITLE KSTGB##P SERIES PORTABLE TRI-ROLLER SWAGING TOOLS FOR BACB10GB BEARINGS	
DWG NO. TOOL#(see chart)-15 TENSIONER	REV -
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON: DECIMALS .XXX ± .005 FRACTIONS ± 1/32 .XX ± .01 ANGLES ± .5° X ± .1	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 12-8-08
SHEET 9 of 9	

-13
RECIEVER



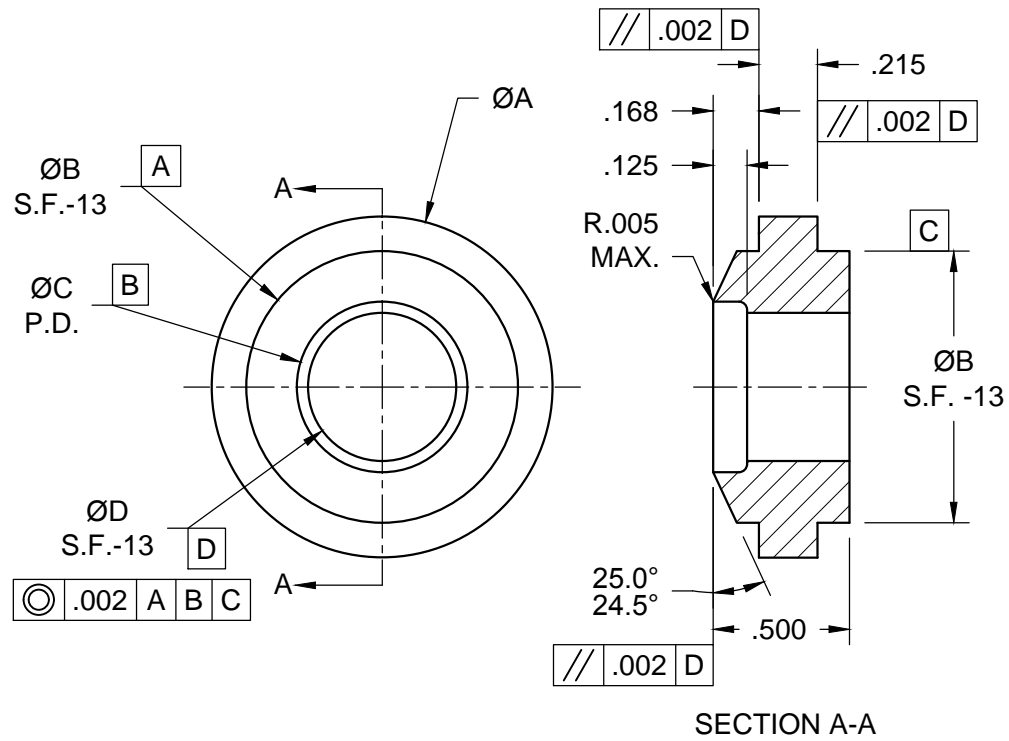
UNDER REVIEW

URF 19-1111 19.10.30 (VM)

BEARING #	TOOL #	$\varnothing A$	$\varnothing B$	$\varnothing C$	$\varnothing D$	E	MATERIAL
BACB10		$+0.010$ -0.010	$+0.005$ -0.000	$+0.000$ -0.003	$+0.002$ -0.000	$+0.003$ -0.003	
GBO4G	KSTGB04P	1.250	1.000	.540	.25	.130	4140 Q&T RND.BAR $\varnothing 1-1/4 \times 1-5/16$

RED BARN MACHINE	
TITLE KSTGB##P SERIES PORTABLE TRI-ROLLER SWAGING TOOLS FOR BACB10GB BEARINGS	
DWG NO. TOOL#(see chart)-13 RECIEVER	REV -
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON:	
DECIMALS	FRACTIONS $\pm 1/32$
.XXX $\pm .005$	ANGLES $\pm .5^\circ$
.XX $\pm .01$	
X $\pm .1$	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 12-8-08
SHEET 8 of 9	
DRAWN BY: PERRITT	
APPROVED	
HEAT TREAT	
FINISH BLACK OXIDE	
USED ON BEARING	
SEE CHART	

-11
DUAL SEAT

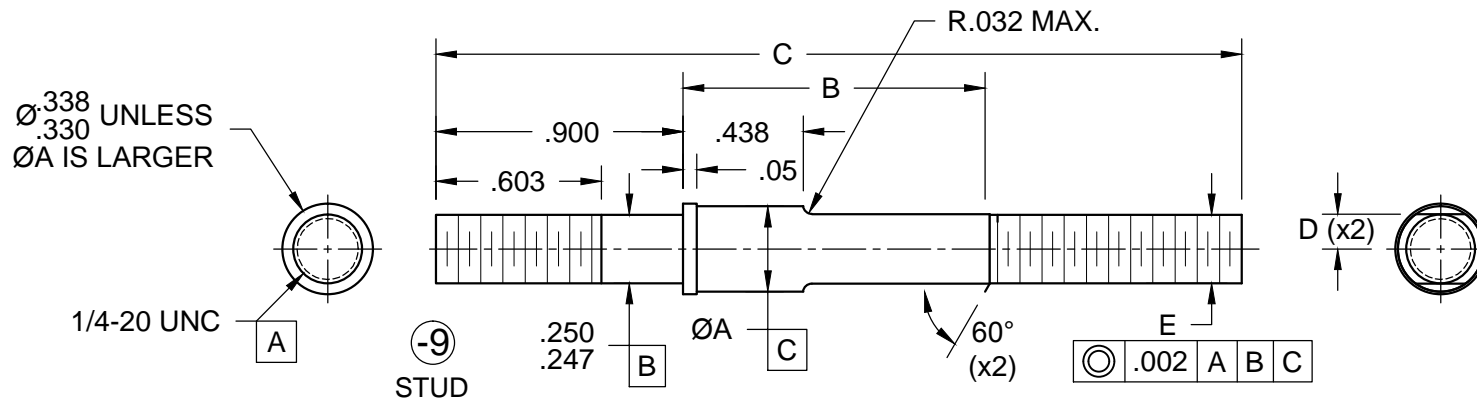


UNDER REVIEW

URF 19-1111 19.10.30 (VM)

BEARING # BACB10	TOOL #	ØA +.010 -.010	ØB +.000 -.003	ØC +.002 -.000	ØD +.003 -.000	MATERIAL
GBO4G	KSTGB04P	1.250	.999	.618	.542	4140 Q&T RND. BAR Ø1-1/4 x 5/8

RED BARN MACHINE	
TITLE KSTGB##P SERIES PORTABLE TRI-ROLLER SWAGING TOOLS FOR BACB10GB BEARINGS	
DWG NO. TOOL#(see chart)-11 DUAL SEAT	REV -
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON: DECIMALS .XXX ± .005 FRACTIONS ± 1/32 .XX ± .01 ANGLES ± .5° X ± .1	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 12-8-08
SHEET 7 of 9	

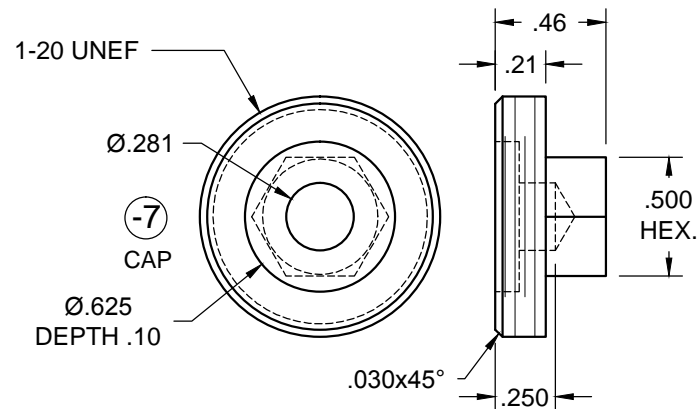


UNDER REVIEW

URF 19-1111 19.10.30 (VM)

BEARING # BACB10	TOOL #	$\varnothing A$ +.000 -.002	B +.010 -.010	C +.010 -.010	D +.000 -.005	E	MATERIAL
GBO4G	KSTGB04P	.247	1.100	2.625	.095	#10-24 UNC	4140 Q&T RND. BAR $\varnothing 3/8$ x 2-7/8

RED BARN MACHINE	
TITLE KSTGB##P SERIES PORTABLE TRI-ROLLER SWAGING TOOLS FOR BACB10GB BEARINGS	
DWG NO. TOOL#(see chart)-9 STUD	REV -
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX \pm .005 .XX \pm .01 X \pm .1	DRAWN BY: PERRITT APPROVED HEAT TREAT FINISH BLACK OXIDE SPEC USED ON BEARING
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	SCALE NTS
DATE 12-8-08	SHEET 6 of 9



NOTES

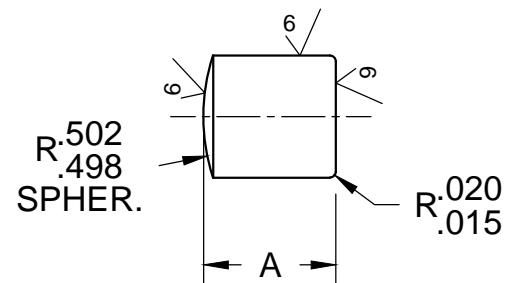
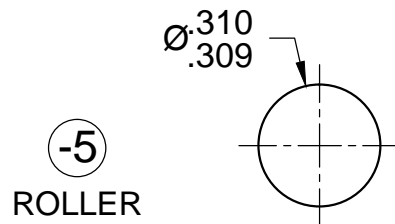
1. NOT USED WITH RIGHT ANGLE ATTACHMENT KSTRA101.

UNDER REVIEW

URF 19-1111 19.10.30 (VM)

BEARING #	TOOL #	MATERIAL
BACB10		
GBO4G	KSTGB04P	1018 RND. BAR Ø1 x 5/8


RED BARN MACHINE	
TITLE KSTGB##P SERIES PORTABLE TRI-ROLLER SWAGING TOOLS FOR BACB10GB BEARINGS	
DWG NO. TOOL#(see chart)-7 CAP	REV -
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1	
FRACTIONS ± 1/32 ANGLES ± .5°	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	
DATE 12-8-08	
SHEET 5 of 9	
DRAWN BY: PERRITT	
APPROVED	
HEAT TREAT	
FINISH SPEC BLACK OXIDE	
USED ON BEARING	

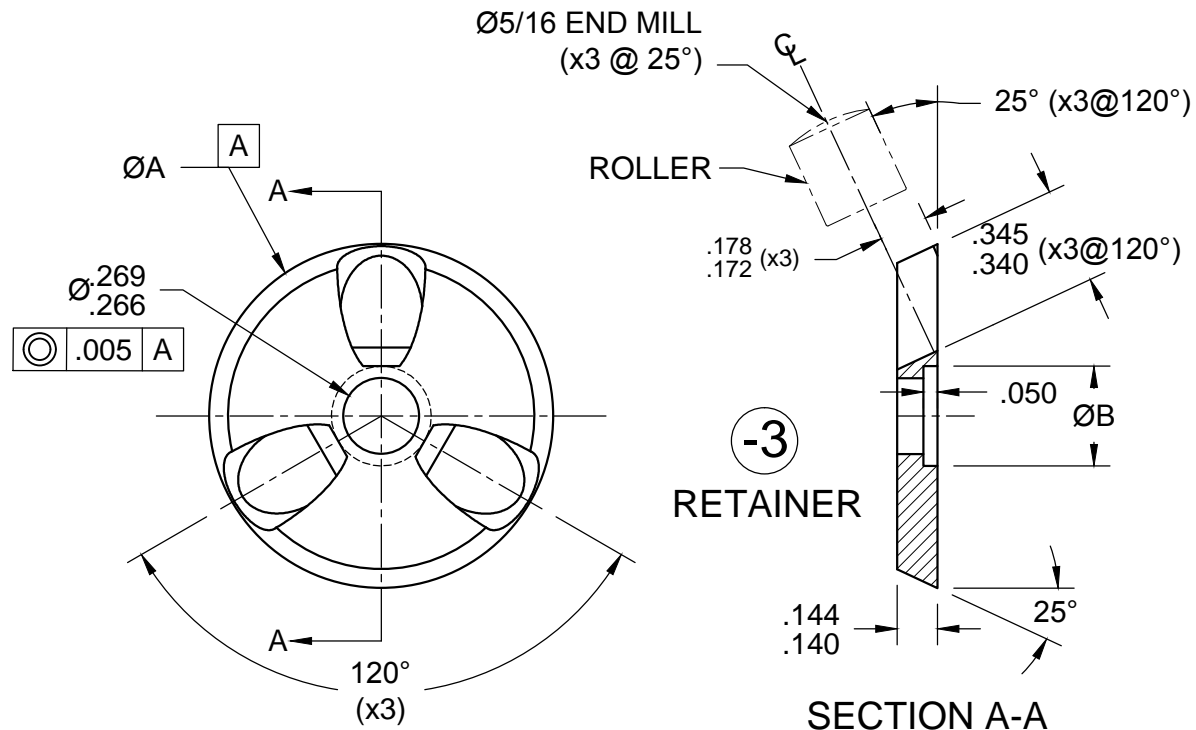


UNDER REVIEW

URF 19-1111 19.10.30 (VM)

BEARING #	TOOL #	A	MATERIAL
BACB10		+.001 -.001	
GBO4G	KSTGB04P	.335	.310 MINUS GAUGE PIN MSC #89031009

 RED BARN MACHINE	
TITLE KSTGB##P SERIES PORTABLE TRI-ROLLER SWAGING TOOLS FOR BACB10GB BEARINGS	
DWG NO. TOOL#(see chart)-5 ROLLER	REV -
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 X ± .1	DRAWN BY: PERRITT APPROVED HEAT TREAT RC 55-60 FINISH SPEC
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON BEARING SEE CHART
SCALE NTS	DATE 12-8-08 SHEET 4 of 9



UNDER REVIEW

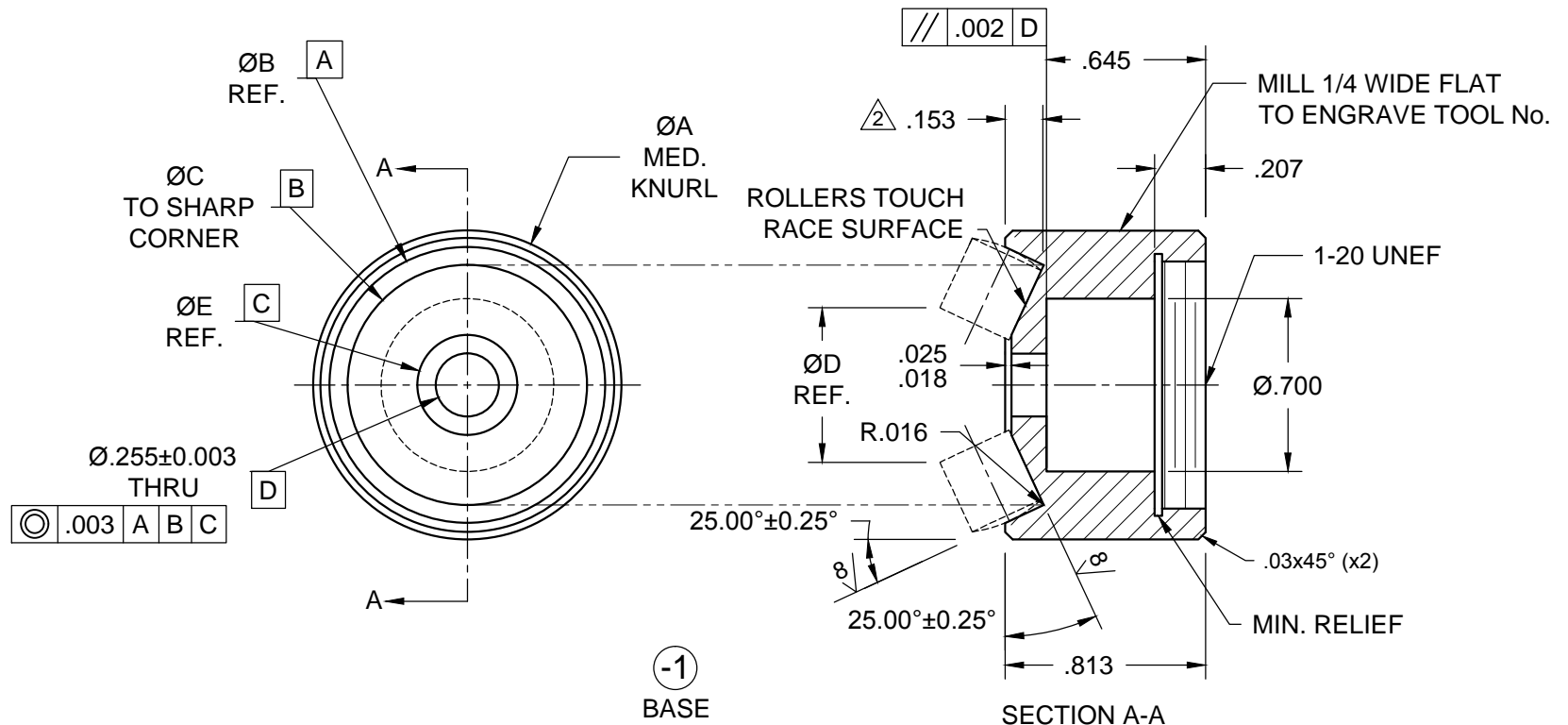
URF 19-1111 19.10.30 (VM)

NOTES

1. BREAK ALL SHARP CORNERS (.015/.03).

BEARING #	TOOL #	ØA	ØB	P.D.	MATERIAL
BACB10		+0.002 -0.002	+0.010 -0.000	REF.	
GBO4G	KSTGB04P	1.215	.350	.618	BRONZE RND. BAR Ø1-1/4 x 3/8

RED BARN MACHINE	
TITLE KSTGB##P SERIES PORTABLE TRI-ROLLER SWAGING TOOLS FOR BACB10GB BEARINGS	
DWG NO. TOOL#(see chart)-3 RETAINER	REV -
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1	
FRACTIONS ± 1/32 ANGLES ± 5°	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 12-8-08
SHEET 3 of 9	REVISIONS



NOTES

1. BREAK ALL SHARP CORNERS (.015/.03).
2. DIMENSION TO BOTTOM OF R.016=.153;
DIMENSION TO SHARP CORNER=.158.
3. RACE SURFACE OF -1 BASE MUST BE SMOOTH AND FREE OF GROOVES & MACHINING MARKS.
4. MUST HOLD ØC POSITION AND ANGLE TOLERANCES TO MAINTAIN PITCH DIA..
5. DO FIRST ARTICLE INSPECTION BEFORE HEAT TREATING.

UNDER REVIEW

URF 19-1111 19.10.30 (VM)

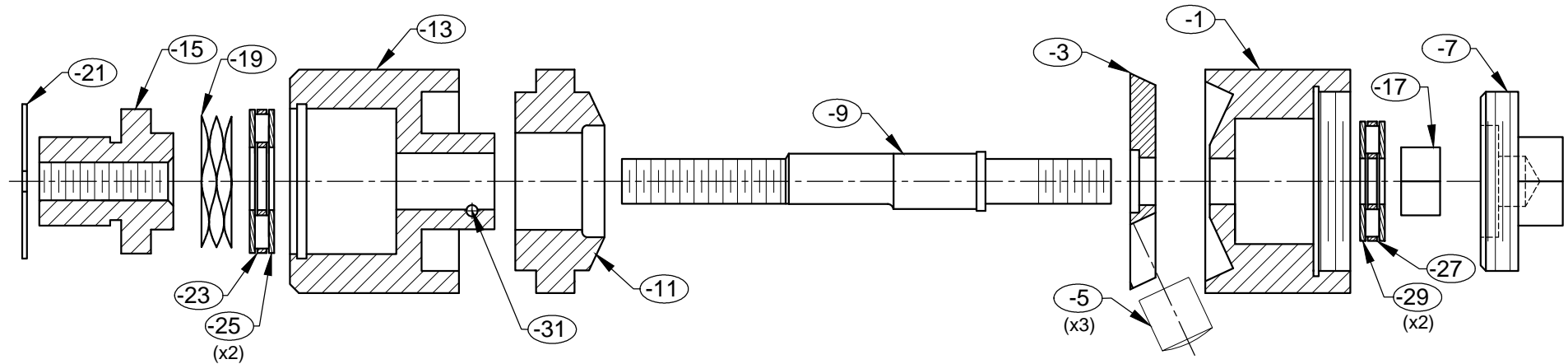
BEARING #	TOOL #	ØA	ØB	ØC	ØD	ØE	MATERIAL
BACB10		+010 -010	+006 -002	+006 -002	P.D. REF.	+006 -002	
GBO4G	KSTGB04P	1.250	1.111	.964	.618	.393	O-1 DRILL ROD Ø1-1/4 x 1

RED BARN MACHINE	
TITLE KSTGB##P SERIES PORTABLE TRI-ROLLER SWAGING TOOLS FOR BACB10GB BEARINGS	
DWG NO. TOOL#(see chart)-1 BASE	REV -
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON:	
DECIMALS	FRACTIONS ± 1/32
.XXX ± .005	ANGLES ± 5°
.XX ± .01	
X ± .1	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 12-8-08
SHEET 2 of 9	

DRAWN BY: PERRITT
APPROVED
HEAT TREAT RC 55-60
FINISH SPEC BLACK OXIDE
USED ON BEARING
SEE CHART

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REV		DESCRIPTION	REVISIONS		
DATE	INITIAL	APPROVED			
-	-	-			



NOTES

1. FLAT END OF -5 ROLLERS MUST FACE THE CENTER OF TOOL WHEN ASSEMBLED.
2. TIGHTEN -17 LOCK NUT UNTIL -3 RETAINER HAS .004 CLEARANCE OF -5 ROLLERS. -5 ROLLERS AND -3 RETAINER MUST TURN SMOOTHLY ON -1 BASE WHEN ASSEMBLED.

UNDER REVIEW

URF 19-1111 19.10.30 (VM)

ASSY QTY	ASSY QTY	B/O	PART #	UNIT QTY	DESCRIPTION	MAT.	B/O INFORMATION OR SPECIFICATIONS	Pg.
			-1	1	BASE		SEE CHART	2
			-3	1	RETAINER		SEE CHART	3
			-5	3	ROLLER		SEE CHART	4
			-7	1	CAP		SEE CHART	5
			-9	1	STUD		SEE CHART	6
			-11	1	DUAL SEAT		SEE CHART	7
			-13	1	RECEIVER		SEE CHART	8
			-15	1	TENSIONER		SEE CHART	9
		B/O	-17	1	DISTORTED THREAD LOCK NUT		1/4-20 UNC x 7/32 Ht. MCMMASTER-CARR #95065A150	1
		B/O	-19	1	CREST TO CREST FLAT WIRE WAVE SPRING	STEEL	.750 OD., .550 ID., WIRE THICK. .013, THREE TURNS SMALLEY RING CO. #CS075-H1	1
		B/O	-21	1	INTERNAL SNAP RING	STEEL	Ø7/8 BORE MCMMASTER-CARR #99142A410	1
		B/O	-23	1	THRUST BEARING (SPRING SIDE)	STEEL	Ø3/8 ID. x 13/16 OD. x 5/64 WIDTH APPLIED (TIMKEN #NTA-613)	1
		B/O	-25	2	BEARING WASHER	STEEL	Ø3/8 ID. x 13/16 OD. x 1/32 WIDTH APPLIED (TIMKEN #TRA-613)	1
		B/O	-27	1	THRUST BEARING	STEEL	Ø1/4 ID. x 11/16 OD. x 5/64 WIDTH APPLIED (TIMKEN #NTA-411)	1
		B/O	-29	2	BEARING WASHER	STEEL	Ø1/4 ID. x 11/16 OD. x 1/32 WIDTH APPLIED (TIMKEN #TRA-411)	1
		B/O	-31	1	ROLL PIN	STEEL	Ø1/16 x 3/8	N/S
ASSY #								

BEARINGS & TOOLS COVERED	
BEARING #	TOOL #
BACB10GB04G	KSTGB04P

RED BARN MACHINE	
TITLE KSTGB##P SERIES PORTABLE TRI-ROLLER SWAGING TOOLS FOR BACB10GB BEARINGS	
DWG NO.	SEE CHART ABOVE FOR TOOL #
REV	-
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON:	
DECIMALS .XXX ± .005	FRACTIONS ± 1/32
.XX ± .01	ANGLES ± 5°
.X ± .1	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE	NTS
DATE	12-8-08
SHEET	1 of 9

NOT APPROVED FOR PRODUCTION

UNDER REVIEW
URF 19-1111 19.10.30 (VM)

 RED BARN MA

URF 19-1111 19.10.30 (VM)

 RED BARN MACHINE


NOT APPROVED FOR PRODUCTION

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

UNDER REVIEW

URF 19-1111 19.10.30 (VM)

	PART #	QTY	DESCRIPTION
	-1	1	--

DRAWN BY: PERRITT	 RED BARN MACHINE		
CHECKED			
HEAT TREAT FINISH SPEC			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1 FRACTIONS ± 1/32 ANGLES ± .5°			
USED ON MODEL ?	TITLE	DWG NO.	REV.
		PART #	
	SCALE NTS	DATE 1-28-06	SHEET 1 of 1
	UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING		